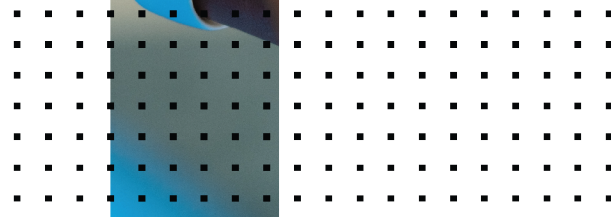
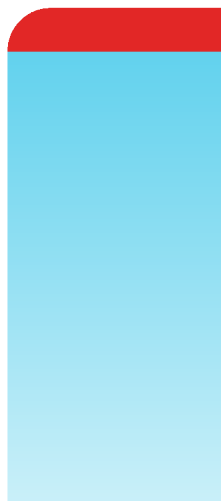


# Upgrade Guide

FortiSOAR 7.0.0



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FortiSOAR 7.0.0 Upgrade Guide

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# Change Log

Date	Change Description
2021-04-23	Initial release of 7.0.0
2021-06-14	Updated the <a href="#">Preparing to Upgrade FortiSOAR</a> section to add the correct permissions that a playbook appliances requires on the <code>Widgets</code> module.

# Introduction

This guide covers upgrading a FortiSOAR™ enterprise instance, High Availability (HA) cluster, or a distributed multi-tenant configuration.



From version 7.0.0 onwards, the FortiSOAR UI will display a notification when a new release (always the latest) is available. The notification also contains a link to that version's release notes so that you can get details about the latest available release. This keeps FortiSOAR users informed about the latest releases and then users can make informed decisions about upgrading to the latest available FortiSOAR version.

---

This document describes how to upgrade FortiSOAR to 7.0.0. This guide is intended to supplement the FortiSOAR Release Notes, and it includes the following sections:

- [Preparing to Upgrade FortiSOAR](#)
- [Upgrading a FortiSOAR Enterprise Instance](#)
- [Upgrading a FortiSOAR High Availability Cluster](#)
- [Upgrading a FortiSOAR Distributed Multi-Tenancy Configuration](#)



You can upgrade your FortiSOAR enterprise instance, High Availability (HA) cluster, or a distributed multi-tenant configuration to version 7.0.0 from version 6.4.3 or 6.4.4 only. Also, once you have upgraded your configuration, you must log out from the FortiSOAR UI and log back into FortiSOAR.

---

Also, note that the upgrade procedure temporarily takes the FortiSOAR application offline while the upgrade operations are taking place. We recommend that you send a prior notification to all users of a scheduled upgrade as users are unable to log in to the FortiSOAR Platform during the upgrade.

Before you upgrade your FortiSOAR instance, it is highly recommended that you review the *Special Notices* chapter in the "Release Notes", so that you are aware of operational and breaking changes made in version 7.0.0.

To solve common issues that occur during the upgrade process, see the *Troubleshooting FortiSOAR* chapter in the "Deployment Guide."

## Preparing to Upgrade FortiSOAR

We recommend performing the following tasks to prepare for a successful FortiSOAR upgrade:

To prepare for upgrading FortiSOAR (summary):

- Take a VM snapshot of your current system. Only after you have taken a VM snapshot of your system should you attempt to upgrade FortiSOAR. In case of any failures, these VM snapshots will allow you to revert to the latest working state. Follow the steps mentioned in the documentation of your platform for taking a snapshot and reverting to the current snapshot.
- Ensure that the playbook appliance has 'Create' and 'Read' permissions on the `Widgets` module. Playbook appliance is used to install the widgets required by the war room, and if the permissions to the Widgets are not assigned; the required war room widgets will fail to install.
- Take a backup of your FortiSOAR Built-in connectors' (SSH, IMAP, Database, Utilities, etc.) configuration, since the configuration of your FortiSOAR Built-in connectors might be reset, if there are changes to the configuration parameters across versions.
- Ensure that the `ssh` session does not timeout by entering into the `screen` mode. For more information on how to handle session timeouts, see the [Handle session timeouts while running the FortiSOAR upgrade](#) article present in the Fortinet Knowledge Base.
- Ensure that [update.cybersponse.com](https://update.cybersponse.com) is reachable from your VM. If you are connecting using a proxy, then ensure that proxy details set are correct using the `csadm network list-proxy` command and also ensure that `update.cybersponse.com` is allowed in your proxy. For more information on `csadm` CLI, see the *FortiSOAR Admin CLI* chapter in the "Administration Guide."
- Ensure that you have reviewed the *Special Notices* chapter in the "Release Notes", so that you are aware of operational and breaking changes made in version 7.0.0.

# Upgrading a FortiSOAR Enterprise Instance

To upgrade your system to FortiSOAR from 6.4.3 or 6.4.4 to 7.0.0, perform the following steps:

1. Users who have `root` access must run the upgrade installer.

2. ssh to the VM that you want to upgrade.

3. Run `screen`:

```
screen -S upgrade
```

**Note:** This is intended for situations where network connectivity is less than favorable. If there is any connection loss, log back into the SSH console and return to the virtual screen by using the following command:

```
screen -r
```

4. Run the following command to download the upgrade installer:

```
# wget https://update.cybersponse.com/7.0.0/upgrade-fortisoar-7.0.0.bin
```

**Note:** If your instance can connect to "update.cybersponse.com" only by using a proxy, then ensure that the proxy is set in the `/etc/wgetrc` file. For example,

```
use_proxy=yes
```

```
http_proxy=<proxy_server_ip:port>
```

```
https_proxy=<proxy_server_ip:port>
```

You can also set the proxy while running the FortiSOAR Configuration Wizard or by using the `csadm network` command.

5. Run the upgrade installer using the following command:

```
# sh upgrade-fortisoar-7.0.0.bin
```

OR

```
# chmod +x upgrade-fortisoar-7.0.0.bin
```

```
# ./upgrade-fortisoar-7.0.0.bin
```

**Note:** The FortiSOAR upgrade installer checks `/boot` for disk space, and if the `/boot` has insufficient space, then the upgrade installer exits after displaying an appropriate error message. Steps for cleaning up `/boot` are present in the [Clean up /boot](#) article present in the Fortinet Knowledge Base.

The FortiSOAR upgrade installer also checks the `/var/lib/pgsql` disk space to ensure that you have sufficient disk space for `pgsql`. If you do not have sufficient disk space for `pgsql`, in this case also the upgrade installer exits.

In these cases, you must increase the partition size for `/var/lib/pgsql`. For the procedure to increase the partition size, see the 'Issues occurring in FortiSOAR due to insufficient space' section in the *Deployment Troubleshooting* chapter in the "Deployment Guide" for more information.

Once you complete cleaning up `/boot` and/or increasing disk space (as per the messages provided by the upgrade installer) and you have sufficient space for upgrading FortiSOAR, you must re-run the upgrade installer to continue the process of upgrading FortiSOAR.

**Important:** To upgrade a high availability cluster in FortiSOAR, you require to upgrade each node individually, one after the other. For more information, see the [Upgrading a FortiSOAR High Availability Cluster](#) section. For information on how to upgrade a FortiSOAR distributed multi-tenant configuration to 7.0.0, see the [Upgrading a FortiSOAR Distributed Multi-Tenancy Configuration](#) section.

**Note:** When you upgrade your FortiSOAR enterprise instance, High Availability (HA) cluster, or a distributed multi-tenant configuration, the FortiSOAR appliance hostkey also gets changed.

6. Once your FortiSOAR instance is upgraded, you must log out from the FortiSOAR UI and log back into FortiSOAR.



When you upgrade to FortiSOAR 7.0.0 you will observe warning messages in the upgrade log.

Example warning messages are:

```
"[2021-01-21 17:08:00] warning: file /usr/lib/node_modules/npm/scripts/index-build.js: remove failed: No such file or directory
[2021-01-21 17:08:00] warning: file /usr/lib/node_modules/npm/scripts/doc-build.sh: remove failed: No such file or directory".....
```

These warning messages appear since `node.js` has been upgraded in FortiSOAR version 7.0.0. The warnings are displayed during the clean-up process of the old `node.js` files.

These warnings do not break any functionality in the product and can be ignored.

---

## Post upgrade steps

Once you have completed upgrading your FortiSOAR enterprise instance, High Availability (HA) cluster, or a distributed multi-tenant configuration:

- You must backup your data encryption keys (`.Defuse.key`) from the `/opt/cyops/config/cyops-api` file. The `Defuse.key` is a dot file, therefore you need to use `ls -la /opt/cyops/configs/cyops-api/` to list/view the file and store the data encryption keys securely in a Password Manager or Vault.
- You can also optionally re-index new modules such as War Rooms and Announcements. This is needed since when you upgrade your system to 7.0.0, new modules are not re-indexed, causing the new modules, i.e., War Rooms and Announcements to not be searched in global records. To resolve this issue, re-index the War Rooms and Announcements modules using the following command:

```
sudo -u nginx php /opt/cyops-api/bin/console app:elastic:create --index='{ "type": ["warrooms", "announcements"] }'
```

To re-index all the modules, use the following command:

```
sudo -u nginx php /opt/cyops-api/bin/console app:elastic:create
```



## Upgrading a FortiSOAR High Availability Cluster

This section describes the procedure to upgrade a FortiSOAR High Availability (HA) cluster. This section considers that the HA setup has a Reverse Proxy or Load Balancer such as "HAProxy" configured.



Refer to the [Preparing to Upgrade FortiSOAR](#) section and ensure that all the prerequisites mentioned in that section are met. The upgrade installer will handle all FortiSOAR services management.

---

## Upgrading an Active-Active HA Cluster

For the purpose of the following procedure, *Node1* is considered as the Active Primary node, *Node2* is considered as the Active Secondary node. Both the nodes are fronted by a Reverse Proxy or Load Balancer such as "HAProxy".



Approximately 30 minutes of downtime is required for the upgrade.

---

To upgrade your active-active HA cluster to FortiSOAR 7.0.0, perform the following steps:

1. Configure the Reverse Proxy to pass requests only to *Node1*.  
This ensures that FortiSOAR requests are passed only to *Node1*, and *Node2* can be upgraded.
2. Use the `#csadm ha` command as a root user and run the `leave-cluster` command on *Node2*.  
This makes *Node2* a standalone system.
3. Upgrade *Node2* using `upgrade-fortisoar-x.x.x.bin`.  
Once the upgrade of *Node2* is completed successfully, you can now upgrade *Node1*.  
**Important:** Upgrade of *Node1* will incur downtime.
4. Once both the nodes are upgraded then run the `join-cluster` command from *Node2*.
5. Configure the Reverse Proxy again to handle requests from both *Node1* and *Node2*.

## Upgrading an Active-Passive HA Cluster

For the purpose of the following procedure, *Node1* is considered as the Active Primary node, *Node2* is considered as the Passive Secondary node. Both the nodes are fronted by a Reverse Proxy or Load Balancer such as "HAProxy".



Approximately 30 minutes of downtime is required for the upgrade.

---

To upgrade your active-passive HA cluster to FortiSOAR 7.0.0, perform the following steps:

1. Reverse Proxy is configured to have *Node2* as backup system. Therefore, you require to comment out that part from Reverse Proxy configuration.
2. Use the `#csadm ha` command as a `root` user and run the `leave-cluster` command on *Node2*. This makes *Node2* a standalone system.
3. Upgrade *Node2* using `upgrade-fortisoar-x.x.x.bin`.  
Once the upgrade of *Node2* is completed successfully, you can now upgrade *Node1*.  
**Important:** Upgrade of *Node1* will incur downtime.
4. Once both the nodes are upgraded then run the `join-cluster` command from *Node2*.
5. Configure the Reverse Proxy again to set *Node2* as the backup server.

# Upgrading a FortiSOAR Distributed Multi-Tenancy Configuration

This section describes the procedure to upgrade a FortiSOAR distributed multi-tenant configuration for managed security services providers (MSSPs) or Distributed SOC configuration.

You must first upgrade the master node of your FortiSOAR distributed multi-tenant configuration and only then upgrade the tenant nodes of your FortiSOAR multi-tenancy setup.



In case of a distributed deployment, both the master and the tenant nodes must be upgraded. A version mismatch will not work if either of them upgrades to 7.0.0.

---

## Upgrading a FortiSOAR master node

Before you upgrade your FortiSOAR master node, ensure the following:

- All playbooks have completed their execution on the master.
- The tenant node(s) are deactivated from the master node before upgrading the master node.

If the master node of your multi-tenant configuration is part of an HA setup, i.e., MSSP +HA, then follow the steps mentioned in the [Upgrading a FortiSOAR High Availability Cluster](#) section.

If the master node of your multi-tenant configuration is not part of an HA setup, then follow the steps mentioned in the [Upgrading a FortiSOAR Enterprise Instance](#) section.

## Upgrading a FortiSOAR Tenant node

Before you upgrade your FortiSOAR tenant node, ensure the following:

- Data replication from the tenant node to the master node is stopped. You can stop data replication by logging on to the tenant node and clicking **Settings** to open the `System` page, then in the `Multi Tenancy` section, click the **Master Configuration** menu item and then in the `Communication With Master Node` section, toggle the **Enabled** button to **NO**.
- All playbooks have completed their execution on the tenant.
- All schedule playbooks that fetch data from data sources to the tenant are stopped.
- Any application that pushes data from data sources to the tenant is stopped.

If the tenant node of your multi-tenant configuration is part of an HA setup, i.e., MSSP +HA, then follow the steps mentioned in the [Upgrading a FortiSOAR High Availability Cluster](#) section.

If the tenant node of your multi-tenant configuration is not part of an HA setup, then follow the steps mentioned in the [Upgrading a FortiSOAR Enterprise Instance](#) section.



After the tenant node has been successfully upgraded, you must toggle the **Allow Module Management** setting to **NO** and then back to **YES**. This is needed only if you were already using the 'Allow Module Management' feature and is required to synchronize the tenant module metadata with the master instance. You can ignore this step, if your 'Allow Module Management' setting was already disabled before the upgrade.

## Upgrading a FortiSOAR Secure Message Exchange

A secure message exchange establishes a secure channel that is used to relay information to the agents or tenant nodes. To create a dedicated secure channel, you are required to add the reference of the installed and configured secure message exchange, when you add agent or tenant nodes to your environment. For information on agents see the *Segmented Network support in FortiSOAR* chapter in the "Administration Guide," and for more information on secure message exchange and tenants, see the "Multi-Tenancy support in FortiSOAR Guide".

1. Ensure that you stop data replication between the master and the tenant nodes. You can stop data replication by logging on to the tenant node and clicking **Settings** to open the `System` page, then in the `Multi Tenancy` section, click the **Master Configuration** menu item and then in the `Communication With Master Node` section, toggle the **Enabled** button to **NO**.
2. SSH to the secure message exchange VM that you want to upgrade.
3. Run `screen`:  

```
screen -S upgrade
```

**Note:** This is intended for situations where network connectivity is less than favorable. If there is any connection loss, log back into the SSH console and return to the virtual screen by using the following command:  

```
screen -r
```
4. Run the following command to download the upgrade installer:  

```
# wget https://update.cybersponse.com/7.0.0/upgrade-fortisoar-7.0.0.bin
```
5. Run the upgrade installer using the following command:  

```
# sh upgrade-fortisoar-7.0.0.bin
```

OR

```
# chmod +x upgrade-fortisoar-7.0.0.bin
```

```
# ./upgrade-fortisoar-7.0.0.bin
```
6. Once you have successfully upgraded the secure message exchange, start the data replication between the master and the tenant nodes again by toggling the **Data Replication** button to **ON**, and then verify the replication.

## Upgrading a FortiSOAR Secure Message Exchange Cluster

RabbitMQ supports clustering, that in conjunction with Queue Mirroring can be used for an Active-Active configuration as explained in the [Clustering Guide](#) and in the [Highly Available \(Mirrored\) Queues](#) article, which includes steps on how to set up the clusters and monitor queues. The clustered instances should be fronted by a TCP Load Balancer such as HAProxy, and clients should connect to the cluster using the address of the proxy. For more information, see the *Multi-tenancy support in FortiSOAR* guide.



For the purpose of the following procedure, we are considering a two-node MQ mirrored queue clusters that are both added to the Reverse Proxy.

---

1. Configure the Reverse Proxy to pass requests only to *Node1*, which is the primary node of the MQ cluster. Therefore, now all requests will be handled by *Node1* and *Node2* will be available for maintenance.
2. Log on to the *Node2* terminal session as a `root` user, and upgrade *Node2* by following the steps mentioned in the [Upgrading a FortiSOAR Secure Message Exchange](#) section.
3. Configure the Reverse Proxy to route requests through *Node2*. Therefore, now all requests will be handled by *Node2* and *Node1* will be available for maintenance.
4. Login to *Node1*, and upgrade *Node1* as per the procedure mentioned in **step 2**.
5. Reconfigure the Reverse Proxy to load balance both *Node1* and *Node2*.



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